REMARKS

Applicants hereby request further consideration of the application in view of the amendments above and the comments that follow.

Information Disclosure Statement

The Action indicates that document numbers 9 to 14 on Applicants' form PTO-1449 were not considered because they do not list a date. However, Applicants note that the PTO-1449 states for each of these documents "(admitted prior art)". Accordingly, Applicants respectfully request consideration of these documents and indication of the same with the next Official Action.

The Action also states that document number 14 was not considered because only one page was enclosed and there was no date. Applicants note that the date, as listed on the PTO-1449 is "1993". Further, Applicants wish to clarify that the document as provided with the information disclosure statement does in fact include only one page (page 5-10). A duplicate copy of the document is provided herewith which may more clearly show the page number and date of the document.

Status of the Claims

Claims 1-51 are pending in the application. Claims 1, 2, 3, 21, 24, 25, 27, 28, 32, 40, 41, 42, 47 and 48 stand rejected under Section 102 as being anticipated by U.S. Patent No. 5,895,890 to Uchiyama et al. (hereinafter "Uchiyama"). Claims 4-8, 29, 33, 44, 45 and 49 stand rejected under Section 103 as being unpatentable over Uchiyama in view of Applicants' Admitted Prior Art (hereinafter "AAPA"). Claims 9, 14, 16-19, 30, 35, 38, 46 and 50 stand rejected under Section 103 as being unpatentable over Uchiyama in view of U.S. Patent No. 5,821,460 to Marmy (hereinafter "Marmy"). Claims 22, 23, 26 and 43 stand rejected under Section 103 as being unpatentable over Uchiyama. Claims 10-13, 15, 20, 31, 36, 37, 39 and 51 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claim 34 has been allowed.

The Allowed Claims

The Action indicates that original Claims 10-13, 15, 20, 31, 36, 37, 39 and 51 are directed to allowable subject matter and that Claim 34 is allowed. Original Claims 10-13, 15, 20, 31, 36, 37, 39 and 51 have been rewritten as new Claims 52-62, respectively.

The Rejections Under Sections 102 and 103
Are Overcome by the Claims as Amended

Claims 1-23:

Claim 1 as amended recites, *inter alia*:

> b) a gel disposed in said cavity; and
> c) wherein said cavity and said gel are adapted to receive the stub connection such that said gel is elongated and elastically deformed.

As noted at page 7, lines 19-21 of Applicants' specification, "gel" as recited in the claim refers to the category of materials that are solids extended by a fluid extender. The elongation and elastic deformation of the gel may provide an improved seal between the gel and the connection and between the gel and the cap. In particular, the elongated and elastically deformed gel may provide a compressive force against the stub connection to ensure a good seal between the stub connection and the gel. Moreover, the capacity for elongation and elastic deformation may make the kit suitable for removal and re-entry of the connection from and into the gel while maintaining an effective seal upon re-entry. See also, Applicants' specification at page 7, line 18-page 10, line 31, page 11, lines 29-34, and page 12, line 26-page 13, line 5.

With reference to Uchiyama at col. 3, lines 63-64, the Action contends that Uchiyama discloses a gel (element **24**) that is elongated and elastically deformed and applies an outward force against a connection and an interior wall (Action at page 4).

Applicants respectfully submit that Uchiyama in no way teaches or suggests a gel as claimed.

The passage of Uchiyama at col. 3, lines 63-64 states only:

> The neck **25** may be formed before or after insertion of the wires **21a** and substance **24**. The latter may be preferable in the case where the substance is rather viscous.

The only sealants disclosed or contemplated by Uchiyama are curable liquid substances that are cured to "harden" or "solidify". For example, Uchiyama states at col. 3, lines 7-19:

> **FIGS. 1-3** are transverse cross sections through prior art insulation boots containing an encapsulation substance such as a biphenyl polychloride.
>
> In **FIG. 1** a plurality of insulated electrical wires **11a** have exposed bare ends **12** which are electrically connected, for example by soldering or welding. A boot **13** of suitable flexible plastics material, such as polyethylene, contains a curable liquid substance **14**, such as **epoxy resin**. Insulated wires **11a** are inserted into the boot **13**, and the resin is cured, for example by the application of heat so that the curable substance **14** becomes **solid**, and the insulated wires are encapsulated. Such a boot, when correctly applied, has good resistance to current leakage and moisture ingress.

(Emphasis added.) In the Summary of the Invention section at col. 2, Uchiyama states:

> The fluid substance is **solidifiable**, and may be for example an **epoxy resin** curable by heat or the like after insertion of the insulated wire therein.

(Emphasis added.) Uchiyama further describes in the Summary of the Invention section at col. 2:

> In another aspect the invention comprises a method of encapsulating the bare end of an insulated wire, the method comprising the steps of
>
> a) forming a tubular boot having a closed end and an open end;

> b) filling said boot with a **solidifiable** fluid substance;
> c) inserting said wire into said boot;
> d) crimping said boot to define a neck region intermediate the ends thereof; and
> e) **causing said substance to solidify**
>
> Where the boot is transparent and has depth marks, the method may further include the steps of
>
> b2) filling said boot to the outermost depth mark; and
> c2) inserting the wire so that the bare end is inward of the inwardmost depth mark;
> d2) crimping said boot intermediate the depth marks.
>
> In an alternative method the crimping step may be prior to insertion of the wire. In another alternative method the **solidifiable fluid substance** may be filled after insertion of the wires, or after the crimping step.

(Emphasis added.) In the Background of the Invention section at col. 2, Uchiyama states:

> Bared ends of insulated wires may be capped by a boot containing fluid substance which is **solidified after the boot is fitted**. Such an arrangement is disclosed for example in U.S. Pat. No. 3,550,765, and encapsulates the bare wire ends.

(Emphasis added.) Notably, U.S. Patent No. 3,550,765 discusses only the use of adhesive (epoxy resin) that sets and hardens.

In view of the foregoing, Uchiyama clearly does not teach or suggest a connection protector kit including a cap and a "gel" as claimed. More particularly, Uchiyama does not disclose or suggest the use of a gel (*i.e.*, a material extended by a fluid extender). Uchiyama does not teach or suggest a connection protector kit as claimed including a cap and a gel adapted to receive a stub connection such that the gel is elongated and elastically deformed. To the contrary, Uchiyama discloses only sealants that are hardened after insertion of wires. The sealant is either a fluid (before insertion of the wires) or a hardened solid material (following insertion of the wires and subsequent curing). Accordingly, the substance **24** of Uchiyama is not adapted to elongate or elastically deform upon insertion of the wires. Marmy does not satisfy the deficiencies of Uchiyama in this regard.

Accordingly, Claim 1 as amended is allowable over the cited art. Claims 2-23 depend from Claim 1 and are therefore allowable as well for at least the foregoing reasons. At least certain of Claims 2-23 are further distinguishable for the reasons that follow.

Claim 17 depends from Claim 1 and further recites a clamp for retaining the cap on the connection and also a flexible tie wrap to secure the clamp in a closed position about the cap, gel and connection. The Action cites the releasable closure strap **3** of Marmy as corresponding to the claimed flexible tie wrap. However, as best understood, the Action also cites the releasable closure strap **3** as corresponding to the claimed clamp. Applicant respectfully submits that the strap **3** cannot properly correspond to both the claimed tie wrap and the claimed clamp. Accordingly, the cited art fail to teach or suggest these further aspects as recited in Claim 17.

Claim 18 depends from Claim 17 and further recites first and second passages defined in the clamp and adapted to receive the tie wrap. The Action refers to the arrangement shown in **Figure 3BB** of Marmy. However, the slots illustrated in **Figure 3BB** are defined in the cap itself, not a clamp for use with a cap as claimed. Thus, the invention of Claim 18 is further distinguishable from the cited art for at least these reasons.

Claim 23 further recites that the gel has "a Voland hardness of between about 5 and 30 grams force, an elongation of at least 100%, a stress relaxation of no more than 50%, and a tack of greater than about 6 grams." The Action contends that it would have been obvious to have provided Uchiyama with a gel as claimed "since it has held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of design choice." However, in the case of Uchiyama, it may be anticipated that a gel having the claimed properties would not be suitable for the intended use of Uchiyama, wherein a hardened resin is prescribed. Moreover, there is simply no teaching or suggestion in the cited art of a gel having the claimed properties.

Claims 10-13, 15 and 20 include all of the limitations of original Claims 10-13, 15 and 20, which the Action indicates as allowable.

Claims 24 and 26-32:

Claim 24 as amended recites, *inter alia*:

> e) wherein said gel is elongated and elastically deformed and applies an outward force against said connection and said interior wall.

Accordingly, Claim 24 is allowable over the cited art for at least the reasons set for above with regard to Claim 1. Claims 26-32 depend from Claim 24 as amended and are therefore allowable for at least these reasons as well.

Claim 26 further recites, "wherein at least a portion of said gel is elongated at least 50%." An assembly as claimed having a gel in the condition claimed is in no way taught or suggested by the cited art.

Claim 31 includes all of the limitations of original Claim 31, which the Action indicates as allowable.

Claim 33:

Claim 33 as amended recites, *inter alia*:

> c) a gel disposed in said cavity and interposed between said stub connection and said interior wall of said cap, wherein said gel is elongated and elastically deformed and applies an outward force against said connection and said interior wall, at least a portion of said gel being elongated at least 50%; and

Accordingly, Claim 33 is allowable over the cited art for at least the reasons set forth above with regard to Claims 1 and 26.

Claims 40-48:

Claim 48 as amended recites, *inter alia*:

> elastically deforming and elongating the gel about the stub connection;

> maintaining the gel in the elongated state such that the gel exerts an outward force on each of the stub connection and the interior wall of the cap.

Accordingly, Claim 40 is allowable over the cited art for at least the reasons set for the above with regard to Claim 1. Claims 41-48 depend from Claim 40 as amended and are therefore allowable for at least these reasons as well. Claim 43 is further distinguishable for at least the reasons discussed above with regard to Claim 26.

Claims 49-51:

Claims 49 and 50 as amended each recite, *inter alia*:

> inserting the stub connection into the cavity and the gel such that the stub connection displaces and thereby elastically deforms and elongates the gel;

Accordingly, Claims 49 and 50 are allowable over the cited art for at least the reasons set forth above with regard to Claim 1.

Claim 51 includes all of the limitations of original Claim 51, which the Action indicates as allowable.

New Claim 63:

New Claim 63 corresponds to original Claim 19 except that Claim 63 more particularly recites that the first and second members are fully separable. In the rejection of original Claim 19, the Action contends that the ends of the strap **3** of Marmy correspond to the "separable first and second members". Applicants respectfully submit that the clamp as recited in Claim 63 is now clearly distinguishable from the strap **3** of Marmy.

CONCLUSION

Applicant submits that the present application is in condition for allowance and the same is earnestly solicited. Should the Examiner have any matters outstanding of resolution, he is encouraged to telephone the undersigned at 919-854-1400 for expeditious handling.

Respectfully submitted,

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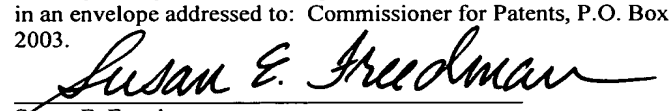
CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on June 18, 2003.



Susan E. Freedman
Date of Signature: June 18, 2003

Termination, Splicing and Marking

Electrical Tapes

Miscellaneous

3M

06147 and 06149 Electrical Moisture Sealant

45 mils pads and rolls are made of a self-fusing, rubber-based insulating compound, laminated to an all-weather grade vinyl (PVC) backing. They mold easily around difficult shapes and will insulate, moisture-seal, and pad all connections up to 600 V.

WESCO Stock No.	Product	UPC	Size	Inner Unit Pack	List	WESCO Each	Lot Qty.	Lot Each
05-4007-06147	06147	06147	2½" x 10'	1/roll	$10.08	$8.99	10	$8.54
05-4007-06149	06149	06149	2½" x 2½"	25/box	8.38	7.47	10	7.10

Scotchfil Electrical Insulation Putty

An electrical-grade, rubber-based, elastic-type putty in tape form. It can be wrapped, stretched or molded around irregular shapes for quick, smooth insulation buildup. Use to insulate connections up to 600 V. Also, use it to round out high-voltage connections to gear, smooth bus bar irregularities, and make a moisture seal at ground wire exits in high-voltage splices. **UL Recognized Component listing for 80°C when used in combination with Super 33 + or 88 tapes (Guide OCDT2, File E59951).**

WESCO Stock No.	Product	UPC	Size	Inner Unit Pack	List	WESCO Each	Lot Qty.	Lot Each
05-4007-15140	Scotchfil	15140	1½" x 60'	1/box-10/ctn.	$6.59	$5.20	50	$4.94

Note: *Scotchfil putty must be over wrapped with 130C or 23 tape to prevent oozing.*

50 and 51 Scotchrap All-Weather Corrosion Protection Tapes

Rugged, pressure-sensitive, PVC-based tapes; 50 is 10 mils thick, 51 is 20 mils. These all-weather tapes can be applied over a wide temperature range. Both protect against moisture, acids, alkalies, salts and sewage, and can be used in direct burial applications. Use these rugged tapes to handle corrosion-protection jobs on pipes, conduit, fittings, joints and valves. **Tapes meet requirements of L-T-1512A. Printing per I.A.P.M.O. and City of Los Angeles specifications only.**

WESCO Stock No.	Product	Size	Inner Unit Pack	List	WESCO Each	Lot Qty.	Lot Each
05-4007-11149	50	1" x 100'	1/box	$5.81	$4.91	10	$4.66
05-4007-11156	50	2" x 100'	1/box	11.65	9.84	10	9.35
05-4007-10646	50	4" x 100'	—	18.15	15.88	12	15.18
05-4007-15785	50	6" x 100'	—	27.21	23.94	8	22.74
05-4007-00012	50 Printed	1" x 100'	—	5.41	3.97	48 box	3.77
05-4007-15793	51	1" x 100'	—	6.90	6.07	48	5.77
05-4007-10653	51	2" x 100'	—	13.76	12.11	24	11.50
05-4007-11404	51	4" x 100'	—	27.53	24.23	12	23.02
05-4007-00023	51 Printed	2" x 100'	—	15.50	13.64	24	12.46
05-4007-00024	51 Printed	4" x 100'	—	32.82	24.09	12 box	22.89

Note: *100 sq. foot of tape equals a square. Example: 2 rls of 6" x 100', 3 rls of 4" x 100', 6 rls of 2" x 100', 12 rls of 1" x 100'.*

Temflex Corrosion Protection Tapes

Economy-grade polyvinyl chloride (PVC) plastic tape especially formulated for corrosion protection of pipes, conduits and metallic cable jackets. This tape is easy to apply and provides excellent protection against abrasion, puncture, corrosion and electrolytic action above and below grade. 10 mils thick.

WESCO Stock No.	Product	UPC	Size	List	WESCO Each	Lot Qty.	Lot Each
05-4007-09065	1100 Printed	09065	2" x 100'	$5.94	$4.36	24	$4.14
05-4007-09061	1100	09061	2" x 100'	5.48	4.83	24	4.59